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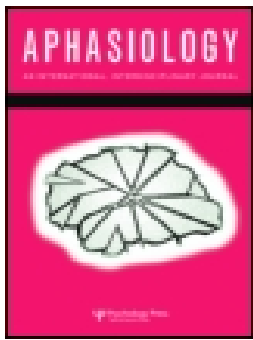
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Profession-specific training on decision-making and capacity assessment in aphasia for speech-language therapy students

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ABSTRACT

Background: Speech and Language Therapists (SLTs) play a vital role in supporting people with aphasia to communicate. Recent studies have shown that despite SLTs' expertise, skills, and knowledge to support people with aphasia's communication needs; they are not regularly involved in the decision-making and capacity (DMC) assessments for people with aphasia. Literature suggests three key contributors to this under-involvement: (1) SLTs do not feel they understand their role in a DMC assessment, (2) they do not feel there is enough profession-specific training, and (3) they feel members of the multidisciplinary team do not fully understand their role and responsibilities to involve them in the process.

Aims: This research reports the development of a profession-specific DMC training programme for SLT trainees, and its implementation to document change in their confidence, knowledge and understanding of the DMC process in people with aphasia.

Methods & Procedures: Thirty-nine SLT students attended a two-hour DMC training session conducted in three phases: pre-training questionnaire, the training programme, and the post-training questionnaire. Topics in the training programme included: the knowledge and tenets of the Mental Capacity Act (MCA); DMC for people with aphasia, focusing specifically on the barriers faced by people with aphasia and professionals; the SLTs' role within a multidisciplinary team regarding DMC assessments; and resources available for facilitating DMC assessments. The change in participants score from pre- to post-training questionnaire was taken as a measure of efficacy of the training programme.

Outcomes & Results: Following training there was a significant increase in the confidence levels of SLT students in terms of ability to complete capacity assessments and train others in their role within a capacity assessment. Participants also had a better understanding of the MCA and an increased knowledge of resources available to support people with aphasia in these assessments. These results demonstrate a crucial need for profession-specific training, which has implications for inter-professional education.

Conclusions: The findings highlight the effectiveness of a short training session in increasing SLT trainees' knowledge and confidence in DMC for aphasia, and improving their understanding of SLTs' role and responsibilities. It is anticipated that this type of training will place SLTs in a better position for future clinical practice, reducing the risks

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currently present not only to patients, but also to staff themselves. We propose that similar training programmes should become mandatory for SLT trainees as part of their clinical training.

The capacity to make one's own decisions is fundamental to the ethical principle of respect for autonomy and is a key component of informed consent to one's own health and social care. The main determinant of capacity is cognition, and any condition that affects cognition or expression of adequate cognition may potentially impair decision-making capacity (DMC, Karlawish, 2017). Determining whether the individual can demonstrate capacity for a specific decision, at a specific time is critical to striking the balance between respecting patient autonomy and acting in a patient's best interest. Communication disorders, such as aphasia, present challenges for assessing DMC (Ferguson, Duffield, & Worrall, 2010; Jayes & Palmer, 2014; Shames, 2012; Suleman & Hopper, 2016; Zuscak, Peisah, & Ferguson, 2015). A skilled capacity assessment for people with aphasia by health- and social-care professionals will improve care outcomes and ensure that the principles of patient-centred care are upheld. To achieve accurate capacity assessments for people with aphasia, professionals involved in these assessments need training to learn and enhance skills to be better prepared and effective clinicians.

In England and Wales, according to the Mental Capacity Act (MCA, Department of Health, 2005) for a person to have capacity about a specific decision, he/she must demonstrate: an ability to understand information relevant to the decision; retain the information; use or weigh up the information; and communicate their decision. Specifically, the Department of Health (2005) states provision should be in place to ensure that the patient is able to understand the information relevant to a decision so it is given in a way that is appropriate to the patient's circumstances. For example, people with aphasia may experience difficulties in expressing themselves using spoken language or understanding the information provided to them verbally. In such situations, provision should be made to ensure the individual's communication needs are met using simple language, visual aids or any other means suitable for that particular patient. In the context of communication difficulties experienced by people with aphasia, the accuracy and reliability of DMC assessments often remain questionable, especially when conducted by untrained or less optimally trained professionals, and by those professionals who are unfamiliar with aphasia (Carling-Rowland, Black, McDonald, & Kagan, 2014; Ferguson et al., 2010; Jayes & Palmer, 2014; Suleman & Hopper, 2016). It is not surprising that studies have found that people with aphasia were presumed to lack capacity due to their communication difficulties (Carling-Rowland & Wahl, 2010; Pachet, Allan, & Erskine, 2012). For example, a UK study found that staff presumed people with aphasia lacked capacity, contrasting with formal DMC assessment results established by a trained neuropsychologist, resulting in unsafe discharges, which did not reflect the people with aphasia's choice (Mackenzie, Lincoln, & Newby, 2008).

One key component to improve the outcome of DMC assessments for people with aphasia is to improve the training of the professionals conducting these assessments. Recently published NICE guidelines suggest that further research in the area of training for DMC assessments will be valuable, particularly in relation to DMC for people with an acquired

brain injury (National Institute for Health and Care Excellence, NICE, 2018). The Royal College of Speech and Language Therapists (2005) identify that people with aphasia can be vulnerable in circumstances relating to capacity due to their communication difficulties and identify Speech and Language Therapists (SLTs) to be the professionals who are integral and uniquely qualified to support their DMC assessments. SLTs have the expertise, skills and knowledge to reveal people with aphasia's true DMC (Suleman & Hopper, 2016). Despite their expertise and specialist knowledge, recent studies have shown that SLTs are not *regularly* recruited for the DMC assessment procedure for people with aphasia in England (McCormick, Bose, & Marinis, 2017). McCormick et al. (2017) surveyed SLTs and found that majority (88%) had been involved in DMC assessments in their clinical settings, but only 18% were involved *routinely*. This is a worrying statistic, especially given that studies have also shown people with aphasia can be labelled mistakenly as lacking capacity due to incorrect assessment by clinicians who are unfamiliar with aphasia (Carling-Rowland et al., 2014).

Several reasons contribute to the lack of routine SLT involvement in DMC assessments for people with aphasia. Lack of appropriate and adequate training on DMC assessments, as well as poor inter-professional awareness regarding the SLTs' role in DMC have both been raised as potential reasons (McCormick et al., 2017). In McCormick et al.'s (2017) study, SLTs have identified a lack of confidence conducting DMC assessments due to a lack of profession-specific training available. A lack of training has frequently been linked to reduced knowledge and confidence (Manthorpe, Samsi, Heath, & Charles, 2011). This, coupled with under confidence (McCormick et al., 2017) and inaccurate capacity judgements, (Carling-Rowland et al., 2014) indicate the crucial need for training regarding DMC assessments for people with aphasia. SLTs have also identified a reduced awareness and lack of resources available to support DMC assessments for people with aphasia (Jayes & Palmer, 2014; Knight, Worrall, & Rose, 2006; McCormick et al., 2017; Suleman & Hopper, 2016). Finding from several studies reveals that SLTs have directly requested more training (Aldous, Tolmie, Worrall, & Ferguson, 2014; Carling-Rowland et al., 2014; Jayes & Palmer, 2014; McCormick et al., 2017); and reported under involvement in the training of others, a role deemed important by many (McCormick et al., 2017).

Recently published NICE guidelines 2018 (on decision-making and mental capacity) emphasises the importance of further research on training and supporting the application of the MCA (Department of Health, 2005) and DMC assessments by making specific recommendations for research: "What is the effectiveness and cost effectiveness of different training programmes on the Mental Capacity Act 2005 at improving practice for practitioners involved in supporting decision-making, conducting capacity assessments and making best interests decisions?" (page 38, National Institute for Health and Care Excellence, 2018). The report states that "evidence suggested that practitioners did not always understand the requirement of the Act (Department of Health, 2005)" and "tailored approaches such as speech and language therapy and psychological and psychosocial interventions can lead to improvements in a person's capacity to make a decision" (page 38, National Institute for Health and Care Excellence, 2018).

Evidence suggests that training health- and social-care professionals significantly enhances clinical practice resulting in better prepared, more effective, and confident clinicians (Department of Health, 2013). Specifically, training about resources, legislation and supportive communication techniques could improve both SLTs' and multidisciplinary team members'

ability to reliably assess DMC for people with aphasia (Carling-Rowland et al., 2014). Moreover, studies highlight the effectiveness of SLT-led training for maximising communication in people with aphasia (Borthwick, 2012; Simmons-Mackie et al., 2007; Zuscak et al., 2015).

Given the importance of this area in accurate and ethical practice, it is recommended that training on DMC should be an integral part of the curriculum for SLT students (Cartwright, Franklin, Forman, & Freegard, 2013; Ferguson et al., 2010; McCormick et al., 2017). The NICE guidelines emphasise “Training should be tailored to the role and responsibilities of the practitioner and cover new staff, pre-registration, and continuing development and practice supervision for existing staff” (page 8, National Institute for Health and Care Excellence, 2018). Given the lack of efficacy studies of DMC training programme or provisions for SLT students, we take a first step to fill this significant gap in this literature. Based on the five-phase model of clinical outcome research, we undertook a Phase I research using a pre- and post-training design (Eccles, 2003; Robey, 2004). We developed a two-hour training programme, which was delivered to SLT students to determine whether profession-specific training for SLT students improves their: (1) knowledge of capacity, the MCA and DMC assessments; (2) accuracy and confidence in assessing DMC for people with aphasia; and (3) confidence in training other members of multidisciplinary team about their role in DMC assessments.

Method

Participants

Participants were recruited through email advertisement and presentation in a lecture with an information sheet and a sign-up form. Participants were 39 female SLT students studying for their BSc ($N = 25$) or MSc ($N = 14$) programmes at the University of Reading. Participation in the training programme was voluntary and was not deemed a mandatory requirement of both degree programmes. Of all students who were eligible to attend the training programme, $N = 122$, 39 (32%) chose to. The BSc students were in their 3rd ($N = 17$) or final ($N = 8$) year of their four-year programme; MSc students were either in their 1st ($N = 8$) or final ($N = 6$) year of their two-year programme. All participants had background knowledge and an understanding of aphasia through their lectures as part of their degree programme. Participants were included irrespective of their placement experience with aphasia. Five out of the 39 participants indicated they had received some information regarding the MCA, and DMC within or outside university. All participants provided informed consent. Ethical approval was obtained in advance from the University Research Ethics Committee (2017-072-AB).

Procedure and design

Participants attended a two-hour training session, which aimed to cover the assessment criteria of the MCA, factors affecting capacity and the DMC assessment process, the SLTs' role in DMC assessment for people with aphasia and means and tools to improve capacity assessment. To facilitate in-depth discussions and enable participants to experience hands on activities, we ran the training session twice with approximately equal

number of participants in each session. Training sessions were peer-led by two 4th year BSc SLT students; the second author being one of these trainers. The efficacy of the training programme was measured by administering a pre- and post-training questionnaire on the participants.

Questionnaires

Pre- and post-training questionnaires were designed to elicit information on the students' knowledge of the MCA, their accuracy and confidence assessing DMC, and their confidence training other members of multidisciplinary team about their role in DMC assessments. The questionnaire was developed by the co-authors following review of the relevant literature, discussions with colleagues and clinicians interested in DMC assessments. Initially, a pilot questionnaire was developed and was provided to two SLT students to determine ease of completion, ambiguities in question wording and suitability of the questions to answer the research questions (Thabane et al., 2010). The students who reviewed the pilot questionnaire did not participate in the study. As a result of the review, minor adjustments were made to the questionnaire. Appendix 1 provides the questionnaire.

There were 25 questions gathering information in the following areas: Confidence assessing DMC for people with aphasia (Q2–5); awareness, knowledge and assessment criteria of the MCA (Q6–7); awareness and knowledge of the SLTs' role in capacity assessments for people with aphasia (Q8–10); knowledge of factors implicating DMC for people with aphasia (Q11); awareness, knowledge and confidence using supportive communication techniques and resources (Q12); and previous training and experience of capacity assessments for people with aphasia (Q13–25). The post-training questionnaire repeated questions 2–12 of the pre-training questionnaire, measuring changes in awareness, knowledge and confidence of areas targeted in the training.

Both qualitative and quantitative data were collected from the questions. Some questions were closed-classed with multiple-choice answers (i.e., yes/no/unsure). Others required participants to identify their position on a 7-point Likert scale relative to the question being asked. For open-ended questions participants were required to answer without a template, allowing an expression of opinion or demonstration of knowledge without being influenced by the researcher (Foddy, 1993). Appendix 1.2 of the post-training questionnaire generated qualitative feedback regarding the training session.

Structure and content of the training programme

The session had three phases: the pre-training questionnaire; the training programme (including videos, verbal presentation and opportunities to explore supportive communication techniques and resources available to support DMC assessments for people with aphasia); and the post-training questionnaire. The structure and the content of the training programme was developed by the co-authors, following research around current training packages available and their contents. The pre-training questionnaire lasted approximately 20 min during which the participants completed Q1–12. To answer Q2–4, the participants watched a three-minute clip of the Communication Aid to Capacity Evaluation Training video (Carling-Rowland, 2012) where a SLT verbally

conducts a DMC assessment with an individual with aphasia without using supportive communication techniques. Participants were blinded to the individual's capacity to make a discharge decision. They were asked to provide baseline judgements for the individual's capacity to decide discharge destination. This allowed participants to demonstrate their confidence in judging decision-specific capacity for this individual with aphasia (Q2–4 of the questionnaire).

Following completion of the pre-training questionnaire, the training programme was conducted. The programme included: explanation for the rationale for conducting the training; explanation of the MCA and its assessment criteria; importance of determining capacity and legal requirements of capacity evaluation; potential barriers masking capacity; the role of SLT and other members of multidisciplinary team in conducting capacity assessments for people with aphasia; and means and tools to improve capacity assessments, such as supportive communication techniques as well as available resources to support communication during DMC assessments. These topics were covered using a lecture style presentation, small group discussions amongst the participants, as well as group activities to explore the resources (described later). The lecture and group discussion lasted 50 min and activities lasted approximately a total of 20 min. Video-clips from "Understanding Aphasia's" and "Dyscover Aphasia's" YouTube channels were used to support understanding of the theoretical content. Videos have been found to facilitate learning, reduce the gap between theory and practice, and are considered an effective method for student learning (Smith-Stoner & Willer, 2003).

For the group activities, the resources were laid out on four tables. Participants were divided equally between the tables. Participants were required to rotate across each of the stations and engaged in a set activity at each station. The activities were designed to develop knowledge, familiarity and experience using the resources. During activities, participants explored each of the resources, specifically the Pictographic Communication Resource (Kagan, Winckell, & Shumway, 1996), materials from the Supporting Conversations for people with aphasia training programme (Kagan, 1998), Black Sheep Press "Supporting Adults with Communication Impairment to Make Decisions" (Allen & Bryer, 2017) and Talking Mats (Talking Mats Ltd, 2017). For example, at the station for the Pictographic Communication Resource, participants were asked to inform their partner that they were not comfortable in their wheelchair without using any verbal output. Opportunities for questions and discussion were provided, and encouraged throughout the session. The authors are happy to share and discuss the content of the training programme with interested readers.

Participants then completed the post-training questionnaire, which took approximately 20 min. Participants watched a second three-minute video of the Communication Aid to Capacity Evaluation Training video (Carling-Rowland, 2012) involving the same client and decision as presented previously. This time the SLT used supportive communication techniques. As the participants were blinded to the individual's DMC to decide discharge destination, the post-training questionnaire allowed the participants to provide judgements for the individual's capacity to decide discharge destination (Q2–4). Additional questions probed participants knowledge and perceived confidence of key themes discussed in training (Q5–12). The post-training questionnaire also probed participants' opinions of the training session (Appendix 1.2).

Data analysis

Pre- and post-training questionnaire data, and qualitative feedback on the training session were anonymised. Descriptive statistics and quantitative analyses were performed for numeric data. All numeric data was non-parametric, therefore the Wilcoxon Signed Rank Test analysis was used to compare the significance of pre- and post-training results. Individual level performances for participants with noteworthy results were also commented on. Qualitative data was analysed using content analysis as well as thematically to identify and analyse patterns from the data (Braun & Clarke, 2006).

Results

Table 1 provides the descriptive data and results of the statistical tests of pre- and post-training questionnaire on the three key areas: Knowledge of capacity, the MCA and DMC assessments; accuracy and confidence in assessing DMC for people with aphasia; and confidence in training other members of multidisciplinary team about their role in DMC assessments. Table 2 provides the thematic patterns that emerged from the post-training qualitative feedback.

Change in students' knowledge of the MCA, factors affecting capacity, DMC assessments and supporting resources

Post-training results demonstrate a significant increase in the SLT students' knowledge of the MCA (Q6) and its principles (Q7). Post-training there was also an increase in the number of participants who identified awareness of conditions which may affect a person's DMC (Q11). Participants' knowledge of the SLTs' role in DMC assessments increased significantly following training (Q9), with 37 (95%) participants rating their knowledge between "good" and "excellent". There was also an increase in the students' knowledge of resources that could be used to support DMC assessments for people with aphasia (Q12). Pre-training, 17 (44%) participants indicated no knowledge of these resources; contrasting with post-training findings when all participants indicated knowledge of resources used to support DMC assessments for people with aphasia, such as Talking Mats (38, 97% participants), Blacksheep Press (24, 62% participants). Participants also demonstrated an increased knowledge of professionals who would be involved in a DMC assessment (Q8). Pre-training, most commonly identified individuals involved in the DMC assessment were SLTs (34, 87%), doctors (28, 72%) and psychologists (19, 49%). Nine (23%) participants stated they were unsure who would be involved in a capacity assessment. Post-training, all participants indicated knowledge of professionals who would be involved in a DMC assessment, with all indicating a SLT as one of these professionals. The other most commonly identified individuals were the patient's family (38, 97%), doctors (37, 95%), and social workers (32, 82%).

Change in students' accuracy and confidence in assessing DMC for people with aphasia

Participants' accuracy determining DMC (Q2) significantly increased following training (see Table 1). Pre-training, 6 (15%) participants judged the individual to have capacity,

Table 1. Results from pre- and post-training questionnaire. The number in the bracket (e.g., Q6) maps to the question on the questionnaire.

	Pre-training			Post-training			Statistical Analysis	
	Mean	Median	SD	Mean	Median	SD	Z	p
Students' knowledge of the MCA, factors affecting DMC assessment								
Current level of knowledge of the Mental Capacity Act (Q6)	3	3	1.1	5.23	5	0.71	-5.49	0
Knowledge of MCA principles (Q7)	0.28	0	0.56	4.49	5	0.76	-5.53	0
Professionals involved in a DMC assessment (Q8)	9 (23%)	Unsure, Most common = SLTs 34 (87%), doctors 28 (72%) and psychologists 19 (49%)		Most common = SLTs 39 (100%), patient's family 38 (97%), doctors 37 (95%), and social workers 32 (82%)				
Current level of knowledge of SLT's role within a DMC assessment (Q9)	3.33	3	0.89	5.41	5	0.64	-5.36	0
Awareness of conditions/situations affecting DMC assessments (Q11)	Yes = 15 (38%), Unsure = 20 (51%)	No = 4 (10%)		Yes = 37 (95%), Unsure = 2 (5%)				
Knowledge of resources used to support a DMC assessment for a person with aphasia (Q12a)	Yes = 9 (23%), Unsure = 13(33%)	No = 17 (44%)		Yes = 39 (100%)				
Students' accuracy and confidence in assessing DMC for people with aphasia								
DMC assessment based on the video clips (Q2)	Yes = 6 (15%), Unsure = 31 (79%)	No = 2 (5%)		Yes = 36 (92%), Unsure = 3 (8%)				
Confidence judging individual's DMC (Q4)	3.21	3	1.19	5.31	5	0.89	-5.11	0
Confidence assessing people with aphasia's DMC (Q5)	2.74	3	1.08	4.67	5	0.84	-5.15	0
Confidence using resources to support a DMC assessment for people with aphasia (Q12b)	2.56	2	1.55	5	5	0.76	-5.04	0
Students' confidence to train multidisciplinary team members regarding SLT's role in DMC assessments								
Confidence training other members of a multidisciplinary team about SLT role (Q10)	1.92	2	0.98	4.49	5	0.82	-5.5	0
Feedback regarding the training session								
Overall quality rating of training session	Mean, SD 6.03, 0.71	Median 6	Range 5-7	Where 5 = good, 7 = extremely good				
Perceived likelihood of using the resources, knowledge and techniques to support conversation for people with aphasia in future practice	6.18, 0.75	6	4-7	Where 4 = unsure, 5 = likely, 6 = very likely, 7 = extremely likely				
Perceived likelihood of using the knowledge, resources and techniques to support DMC assessments for people with aphasia in future practice	5.94, 0.80	6	4-7	Where 4 = unsure, 5 = likely, 6 = very likely, 7 = extremely likely				

Table 2. Themes from the qualitative feedback from the training session.

Positive comments about the training session	
<i>Conduction of the training session</i>	<p>Example comments from the participants</p> <ul style="list-style-type: none"> • Led in a very professional and knowledgeable manner • It was very enjoyable, interactive and useful • It was excellent, interactive, and motivating. I feel more valued than I have at any point in my degree • Brilliant training, clear presentation • Extremely helpful and delivered at the right pace – superb!!! • Really liked the way the presenters tested our knowledge regularly- this helped with retaining the knowledge • Very professional, well organised, interactive and engaging, appropriate length of session
<i>Content of the training session</i>	<ul style="list-style-type: none"> • It was informative and knowledgeable training • PowerPoint was informative, relevant and simple • Enjoyed learning about the Mental Capacity Act • Incredibly informative, well thought-out, presented, and planned • Right amount of information. Loved relating to personal experiences of placement
<i>Use of video clips</i>	<ul style="list-style-type: none"> • Pitched terminology at the right level– not too high or patronising • Loved the information interspersed with video clips to enhance its client-centred nature • Videos were really useful. • Very varied (different style of learning, e.g., group work and videos) • Good use of videos to demonstrate • Really liked the YouTube clips – made it realistic
<i>Including physical resources/assessments in the training session</i>	<ul style="list-style-type: none"> • Best part – many resources present. I enjoyed the interactive parts of the session and having an opportunity to use the resources • Useful to see actual assessments/resources and have a go at using these • Excellent resources, practical session improved understanding. • Very varied (different style of learning, e.g., group work and videos) • I really enjoyed the section where we tried out the resources and felt this was important in helping to understand what the resources are and how they are used • Ability to work through the manuals and techniques during the second part of the session. • Good group rotations to see different resources • Best part was being directed to resources that will be extremely useful on placement and being able to try them out to get a feel of the pros and cons of each one.
<i>Usefulness of the training session</i>	<ul style="list-style-type: none"> • Overall, really useful training • Really useful for placement and future jobs • Really useful – helpful that it had an SLT focus as previous training I have attended regarding MCA has been very general
Points for improvement	
<i>Further guidance for using resources during practical application session</i>	<ul style="list-style-type: none"> • More guidance on how to use the resources during the group time/ presenters could come around and guide us through • Additional support with activities, i.e., explain how you'd use them (understand time and man power restraints) • Could be improved by observing a role-play of going through one of the resources to see how clinicians would use it.
<i>Content of the training session</i>	<ul style="list-style-type: none"> • Didn't understand all tasks in one of the resources • Could encourage more discussion about our experiences • More training on SLT role in decision-making – especially what to do if you disagree with consultants, etc. • Sometimes information was brief and not as deeply explained as would have liked to be able to train others

giving reasons grouped into themes including: the individual's level of comprehension (e.g., "I believe he could understand"); expressive language and communication method (e.g., "He verbally said no); use of gestures (e.g., "He shook his head showing he didn't

want to go home"); and level of awareness (e.g., "He seemed aware of what would happen in a care home"). Two (5%) participants incorrectly judged the individual to lack capacity, giving reasons including the individual's awareness and comprehension level (e.g., "Unable to demonstrate understanding of the question").

Thirty-one (79%) participants were unsure of the individual's DMC, suggesting reasons including: lack of evidence (e.g., "Not enough information"); use of gestures; missing client information (e.g., "Don't know background information"); comprehension level; question responses (e.g., "He was unable to answer any of the questions"); lack of supportive communication techniques (e.g., "Didn't see any communication tools to help understanding"); and question design (e.g., "Questions asked were very long"). Post-training, 36 (92%) participants judged the individual to have capacity, giving reasons grouped into themes including: individual's understanding of his condition; his ability to express mental state; reliable yes/no answers; use of body language/facial expressions/gestures to support language; use of supportive communication techniques; expressive language abilities, for example, "Able to express opinions effectively" and the individual's comprehension abilities. Three participants (8%) remained unsure of the individual's level of capacity. Overall, post-training confidence increased significantly in assessing DMC for the individual presented in the video (Q4) (Table 1), as well as participants' general confidence for assessing DMC with people with aphasia (Q5).

Change in students' confidence to train members of multidisciplinary team about the SLT's role in DMC assessments

Results indicate that post-training participants' confidence to train members of multidisciplinary team regarding SLT's role in DMC assessments significantly increased from 1.92 to 4.49 (Q10, Table 1). Qualitatively, on average participants increased their confidence by two positions on the Likert scale post-training.

Participants' feedback

Participants rating for the overall quality of the training programme was very high (Mean = 6.03, *SD* = 0.71) on a 7-point rating scale ranging from extremely poor (1) to extremely good (7). In addition, 38 participants (97%) indicated they were between "likely" and "extremely likely" to use the resources, knowledge and techniques learnt from training to support future DMC assessments. Summary of the thematic analysis of the qualitative feedback regarding the training session are provided in Table 2. Of note, comments were made regarding the effective use of video clips within training, enhancing the client-centred nature of the topic and allowing for different learning styles to be met. One participant stated, *"It was excellent, interactive, informative [and] motivating. I feel more valued than I have at any point in my degree"* and another *"It was very enjoyable, interactive and useful. [I] loved the information interspersed with video clips to enhance its client-centred nature."* Participants particularly appreciated the profession-specific nature of the training compared to general MCA training, as well as student led interactive aspects of the session. Suggestions of improvement included: further demonstration of supportive communication techniques; discussion of specific types of decision; and ways to address confrontation in instances of disagreements amongst multidisciplinary team members.

Discussion

This study investigated whether profession-specific training for SLT students improves their knowledge of the MCA and DMC assessments; accuracy and confidence in assessing DMC for people with aphasia; and confidence in training other members of multidisciplinary team about their role in DMC assessments. Thirty-nine students attended the training. Results suggest significant improvements in all of the aforementioned, similar to other studies reporting the usefulness of training in other professionals (Carling-Rowland et al., 2014; Richards & Dale, 2009; Willner, Bridle, Dymond, & Lewis, 2011). Previous studies suggest participants leave MCA training lacking the practical skills needed to apply knowledge to real-life DMC assessments (Clarke, 2002; Willner et al., 2011). To address this limitation, this research included, in addition to theoretical knowledge and understanding of MCA and DMC, exploration of resources and supplementary activities highlighting the skills required for DMC assessments for people with aphasia. Participants rated the training session quality highly, stating it filled a crucial knowledge gap. The results illustrate that inclusion of the DMC training for SLT trainees can improve their knowledge and perceived confidence to support DMC assessments for people with aphasia.

Knowledge of MCA and DMC assessments

Capacity is frequently unknown or misunderstood by health- and social-care professionals (Carling-Rowland & Wahl, 2010). Results of our study suggest that training significantly improved participants' knowledge of the MCA (pre-training score = 0.28 to post-training score = 4.49). These results are encouraging and suggest that even a short training session is beneficial in improving students' knowledge of the MCA and DMC assessments, similar to the findings of previous studies with clinical staff ranging from health-care assistants to medical consultants (Richards & Dale, 2009; Willner et al., 2011). Qualitative feedback revealed that the participants commented on the usefulness of the nature of the training, specifically as it was peer-led profession-specific compared to general MCA training. This is in-line with comments from other UK SLTs stating profession-specific training is more useful than general training (McCormick et al., 2017), and peer-led training provides an education quality which is at least as good as that provided by clinical staff (Perkins, Hulme, & Bion, 2002).

Accuracy and confidence assessing DMC for people with aphasia

Results indicated that training significantly increased participants' confidence in undertaking DMC assessment in future as well as improved accuracy in their ability to judge DMC of the client shown in the video. Previous literature has suggested that improved DMC training will improve SLTs confidence in undertaking DMC assessments (Aldous et al., 2014; McCormick et al., 2017). Specifically, pre-training, the majority of participants (31, 79%) felt "unsure" of the individual's DMC; however, post-training 34 (92%) felt confident of the individual's DMC (see Table 1). Students who had not received training before felt on average "not confident" in both assessing DMC for the specific individual and for people with aphasia in general, demonstrating that without training, SLTs lack confidence in their ability to assess DMC.

Post-training, all participants could suggest examples of resources/supportive communication techniques. However, just awareness of materials is not sufficient, and

training is required to know how and why to use them to increase users' confidence (McCormick et al., 2017). Results suggest that this training session significantly increased participants' confidence using these resources, evidencing that incorporating practical activities into training sessions increases participants' confidence applying learnt knowledge (Baldwin & Ford, 1988). These findings reflect previous research (Carling-Rowland et al., 2014) which found training social workers to use accessible resources alongside supportive communication techniques improved assessors' DMC judgements for people with aphasia as well as the assessors' confidence.

Role of the SLT and training of the members of multidisciplinary team

Although, SLTs have an expertise and skill set which could be used effectively within DMC assessments for people with aphasia, they are not routinely involved in DMC assessments (McCormick et al., 2017). This is supported by pre-training results showing 91% of participants rated knowledge of the SLT's role in DMC assessments from "very poor" to "average". This significantly increased post-training, with all participants rating their knowledge between "average" and "excellent", showing training was effective at explaining the role of the SLT in DMC assessments.

SLTs are under-recognised by other members of multidisciplinary team (McCormick et al., 2017). Brady-Wagner (2003) recommends that SLTs should be involved in raising awareness of their role in DMC assessments, as well as be involved in training supportive communication techniques to increase the reliability of DMC assessments. Results of the current study indicate that participants' confidence in training other members of multidisciplinary team increased significantly from pre-training level of 1.92 to post-training level of 4.49. These findings highlight the efficacy of a short profession-specific training programme on increasing participants' confidence in the SLT's role in DMC. This is encouraging as it means future SLTs may feel confident in training others about their role and the use of supportive communication techniques, possibly resulting in more health- and social-care professionals will be equipped with skills required to assess DMC fairly for people with aphasia.

Clinical implications, limitations and future directions

Employers have a duty to ensure health- and social-care professionals are trained on the MCA and DMC (NHS National Institute for Health and Care Excellence, 2018; UK, 2015). Recent NICE Guidelines (National Institute for Health and Care Excellence, 2018) research recommendations include assessment of effectiveness and efficacy for specific curriculum for teaching DMC with different populations (e.g., practising SLTs, SLT students) in various settings (e.g., different types of clinical settings, in different service delivery models). This study suggests that training can be effectively provided during students' clinical training. To ensure people with aphasia's DMC is correctly assessed, greater awareness of the SLT's role in DMC assessments needs to be incorporated into health- and social-care professionals' clinical training. This may result in better prepared clinicians who are more likely to accurately and fairly judge the DMC of a person with aphasia, reducing the risks currently present not only to patients, but also to staff themselves.

Despite encouraging findings of this study, there remains few methodological limitations. Participation was voluntary, which meant that the participants had high level of motivation

and interest to learn. Moreover, this study did not collect longitudinal data to measure retention of knowledge and application in real clinical situation. Long-term retention of information acquired within training is frequently minimal and students may have to wait many years before applying knowledge learnt from the training session (Willner et al., 2011). Future research focusing on retention and application of the knowledge will extend this area. Ideally, this should be undertaken with appropriate control groups as well as including primary and secondary outcome measures with strong psychometric properties. For example, observational data recording in role-play situations or whilst on placement based on objective measures could tap into clinicians' ability to use of supportive communication or levels in providing access to information or decisions (Simmons-Mackie et al., 2007).

Conclusion

Many SLTs lack confidence about their role in DMC assessments and their ability to carry out DMC assessments for people with aphasia, despite being the profession with the most appropriate skills. Without specific training, SLT students are leaving education without knowledge of the MCA, DMC assessments and the importance of their role in assessing DMC with people with aphasia. This research provides preliminary evidence that providing students with a short two-hour profession-specific training increased their knowledge and confidence significantly, possibly placing them in a better position to advocate the inclusion of SLTs in DMC assessments in their future workplaces. A future endeavour will be to further develop similar programmes to incorporate best practise guidelines, focusing on retention of the learning, and actual experience of DMC with people with aphasia during SLT traineeship. This will ensure that SLTs begin their practice with the appropriate skillset needed to promote and enhance patient-centred care for people with aphasia.

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No potential conflict of interest was reported by the authors.

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APPENDIX 1- Pre- and Post-Training Questionnaires

Note: The post-training questionnaire was compiled of questions 2-12 of the pre-training questionnaire and a further section (Appendix 1.2). Questions featuring on both the pre- and post-questionnaire are marked with a *

1. Please tick your year group

3BSc [] 4BSc [] 1MSc [] 2MSc []

a. Please state your **undergraduate** degree: _____

b. If applicable, please state your **Master's degree**: _____

- * 2. You have just watched a clip of a capacity assessment being undertaken on a client with communication difficulties. Based on the clip you have just watched, does this client have capacity to decide where to go on discharge?

Yes [] No [] Unsure []

- * 3. Please provide **two** reasons for the choice you made for question 2:

- * 4. Based on your current knowledge, how confident were you on determining whether **this client** with communication difficulties had capacity?

1	2	3	4	5	6	7
Extremely not confident	Really not	Not confident	Average	Moderately	Very confident	Extremely confident

- * 5. Based on your current knowledge, how confident would you feel completing a capacity assessment for someone with a communication difficulty?

1	2	3	4	5	6	7
Extremely not confident	Really not	Not confident	Average	Moderately	Very confident	Extremely confident

- * 6. What is your current level of knowledge on the Mental Capacity Act (2005)

1	2	3	4	5	6	7
Non existent	Very poor	Poor	Average	Good	Very good	Excellent

*

7. Do you know the principles of the Mental Capacity Act?

Yes [] No [] Unsure []

a. If **YES**, please state them below. If **UNSURE**, write what you **think** they are:

- * 8. **Who** may be involved in a capacity assessment? Please list below. If you don't know, please write 'Unsure':

- * 9. How would you rate your current level of knowledge on a Speech and Language Therapist's role within a decision making/ capacity assessment?

1	2	3	4	5	6	7
Non existent	Very poor	Poor	Average	Good	Very good	Excellent

- * 10. How confident would you feel training other members of multidisciplinary team about SLT role within a decision-making capacity assessment?

1	2	3	4	5	6	7
Extremely Not confident	Really not confident	Not confident	Average	Moderately confident	Very confident	Extremely confident

- * 11. Are you aware of what conditions or situations might affect a person's ability to make decisions?

Yes [] No [] Unsure []

a. If **YES**, please state them below. If **UNSURE**, write what you think they are:

12. Do you know of any resources that could be used to support a decision-making capacity assessment with clients who have a communication difficulty?

* Yes [] No [] Unsure []

a. If **YES**, please state them below. If **UNSURE**, write what you think they are:

b. Please rate your **confidence** of using these resources:

1	2	3	4	5	6	7
Extremely not confident	Really not	Not confident	Average	Moderately	Very confident	Extremely confident

13. Have you previously attended training on **decision-making capacity** with people with communication difficulties **within your university**?

Yes []

No []

14. If you answered **Yes** to question 13 please rate the quality of the training received. Leave blank if answer to question 13 was **No**.

1	2	3	4	5	6	7
Terrible	Very poor	Poor	Average	Good	Very good	Excellent

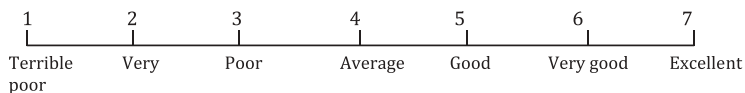
15. If you answered **Yes** to question 14, please state where was the training was carried out. Leave blank if answer to question 14 was **No**.

Please specify

16. Have you previously attended training on decision-making capacity with people with communication difficulties outside of university?

Yes [☐]No [☐]

17. a. If you answered **Yes** to the question 17, please rate the quality of the training received.

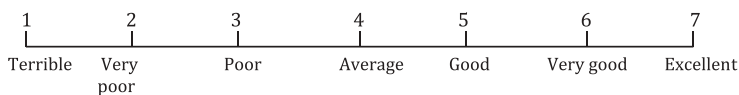


18. Who delivered the training?:

19. Have you previously attended training on the Mental Capacity Act WITHIN your university?

Yes [☐]No [☐]

20. If you answered **Yes** to the previous question, please rate the quality of the training received.



21. Have you previously attended training on the Mental Capacity Act OUTSIDE of university?

Yes [☐]No [☐]

22. a. If you answered **Yes** to question 21, please rate the quality of the training received & state who delivered the training



- b. Who delivered the training?

23. Have you ever **observed** a decision-making capacity assessment being undertaken whilst at work/ on placement?
 Yes [☐] No [☐]

- a. If you answered **Yes** to question 23, please rate the quality of decision-making capacity assessment.

1	2	3	4	5	6	7

Terrible	Very poor	Poor	Average	Good	Very good	Excellent

b. Please state the client's diagnosis: _____

c. Please state the type of decision: _____

d. Please state who was carrying out the assessment: _____

24. Have you ever **taken part** in a decision-making capacity assessment through work or placement?
 Yes [☐] No [☐]

25. If you answered yes to Question 24, please describe the experience.

a. Please state the client's diagnosis: _____

b. Please state the type of decision: _____

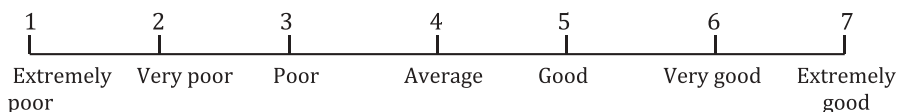
c. Please state what materials you used: _____

End of questionnaire. Thank you.

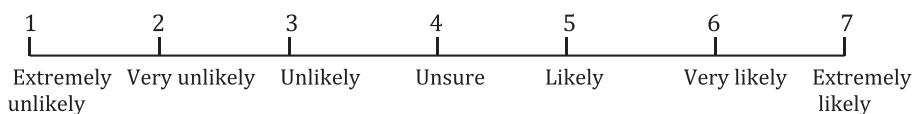
Appendix 1.2- Additional part of post-training questionnaire

This part of the questionnaire is asking for feedback on the training session you have attended today. Please answer honestly and in as much detail as possible, all answers will remain completely anonymous.

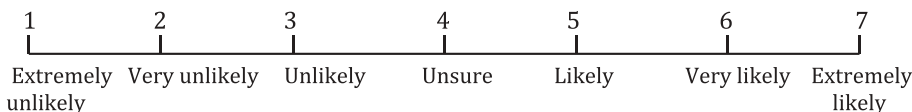
1. How would you rate the **overall quality** of the training session today?



2. How likely are you to use the resources, knowledge and techniques to support **conversation** with people with aphasia in general in your future job/placement?



3. How likely are you to use the resources, knowledge and techniques to support **decision-making capacity assessments** in your future job/placement?



4. Please write down any comments from the training session today, include the aspects of the training session that were the **best/most enjoyed** and any aspects which could be **improved**.